

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-26 (canceled)

Claim 27 (original): A method comprising the steps of:

- directly attaching a first semiconductor die to a package substrate;
- forming electrical connections between the first semiconductor die and the package substrate;
- securing the electrical connections;
- placing a second semiconductor die in a die package;
- attaching the die package to the package substrate; and
- forming electrical connections between the die package and the package substrate.

Claim 28 (original): The method as in Claim 27, wherein the step of placing the second semiconductor die in a die package includes placing the semiconductor die in a ball grid array package.

Claim 29 (original): The method as in Claim 27, wherein the steps of directly attaching and forming electrical connections are performed using a flip-chip process.

Claim 30 (original): The method as in Claim 27, wherein the steps of attaching and forming electrical connections are performed using surface mount technology reflow.

Claim 31 (original): The method as in Claim 27, wherein the step of directly attaching includes the use of adhesives.

Claim 32 (original): The method as in Claim 27, wherein the steps of forming electrical connections include wire-bonding.

Claim 33 (original): The method as in Claim 27, wherein securing the electrical connections includes encapsulating the first semiconductor die.

Claim 34 (original): The method as in Claim 27, wherein securing the electrical connections includes underfilling the first semiconductor die.

Claim 35 (original): The method as in Claim 27, further including the step of attaching solder balls to an underside of the package substrate.

Claim 36 (original): The method as in Claim 27, wherein the package substrate has a footprint of one of 35mm X 35mm, 31mm X 31mm, 27mm X 27mm, 37.5mm X 37.5mm, 40mm X 40mm, 42mm X 42mm, or 42.5mm X 42.5mm.

Claim 37 (original): The method as in Claim 27, further including the step of attaching a heat sink to the package substrate.

Claim 38 (original): The method as in Claim 37, further including the step of positioning a shim on top of the first semiconductor die such that a top of the shim and a top surface of the die package are of substantially equal distance from a surface of the package substrate.

Claim 39 (original): The method as in Claim 27, further including the step of testing the first semiconductor die prior to the step of attaching the die package to the package substrate.

Claim 40 (original): The method as in Claim 27, further including the step of testing the second semiconductor die after the step of placing the second semiconductor die in a die package and prior to the step of attaching the die package.

Claim 41 (new): The method as in claim 33, wherein

the encapsulation having a planar top surface; and

the second semiconductor die having a top surface;

wherein the encapsulation top surface and the second semiconductor die top surface are of equal distance from the package substrate.

Claim 42 (new): The method as in claim 37, further including the step of encapsulating the first semiconductor die, wherein the encapsulation top surface includes a planar top surface, such that the encapsulation top surface and a top surface of the die package are of equal distance from a surface of the package substrate.

Claim 43 (new): A method of forming a multi-die module, comprising:

mounting a first semiconductor die to a module substrate;

forming an electrical connection between the first semiconductor die and the package module substrate;

encapsulating the first semiconductor die in a rectangular structure;

placing a second semiconductor die in a corresponding die package;

mounting the die package to the module substrate; and

forming an electrical connection between the die package and the module substrate.

Claim 44 (new): The method as in claim 43, wherein the encapsulation structure top and a top surface of the die package are of equal distance from a surface of the module substrate.

Claim 45 (new): The method as in claim 44, further including attaching a heat sink to the module substrate.

Amendments to the Drawings:

The attached sheets of drawings includes changes to Figure 1, Figure 4, Figure 5, and Figure 9. In Figure 1, a dashed box is shown around reference number 110. Further in Figure 1, reference number 180 has been added to refer to a corresponding feature. In both Figures 4 and 5, the reference lines associated with reference number 180 have been moved to point to a different feature. In Figure 9, reference number 110 has been replaced with reference number 111.

Attachments: Replacement Sheets
Annotated Sheets Showing Changes